

Work Order ID: 82004

82004

Page 1

March-21-12 3:43:05 PM

Item ID: D206-642-541

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Replacement Skidtube

Start Date: 21/03/2012 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 30/03/2012 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: MLJ Date: 12/03/21 Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D3274	D
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100	0.00
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100

DOCUMENT CONTROL

DC	Memo	0.00
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Document Control

Photocopy bluefile & type labels per PPP D206-642-541 CHG003

N/A 

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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N9000040100

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Cust Item ID:

Required Date: 30/03/2012 Req'd Qty: 1.00

1

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Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	Skidtubes	0.00							
110	Skidtubes	0.00							
Skidtubes	<p>Memo</p> <p>****VERIFY AND INSPECT THE MATERIAL PRIOR TO USE****</p> <p>1- Bend FWD end of tube using bend prog D3274 FWD and foil 10 as per dwg D3274, cut fwd end of tube with saw table setup D3274.</p> <p>2- remove fwd indexing ridge as per dwg D3274. Prepare for welding</p> <p>3- weld fwd cap as per dwg D3274 and QSI004 AR Aluminum Rod Batch: <u>M120164</u></p> <p>4- grind fwd cap weld on top surface only</p> <p>5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.</p> <p>6-Drill Aft cap pilot hole using DT8025</p> <p>7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D. Drill 3/16" pilot holes as per Dwg D3274</p> <p>8-Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #</p> <p>9-Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.</p>								

SAD 12-04-02

SAD 12-04-03

SAD 12-04-05

SAD 12-4-9

SAD 12-04-09

SAD 12-4-9

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
114	QC5- Inspect part completeness to step on W/O	0.00							
114									
QC	Memo	0.00							
Quality Control									
116	QC10- Inspect visual per QSI004- ground welds	0.00							
116									
QC	Memo	0.00							
Quality Control									
120	Chemical Conversion Coat per QSI005 4.1	0.00							
120									
HandFinish	Memo	0.00							
Hand Finishing									

① S.A.O. 12-04-09

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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Required Date: 30/03/2012 Req'd Qty: 1.00

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

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Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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130 QC7-Inspect Chemical Conversion Coat 0.00

130

QC Memo 0.00

Quality Control

1 0 26 12/04/10

150 0.00

150

Skidtubes

Skidtubes Memo 0.00

Skidtubes 1-Open Ø0.313" and 0.375" crossbolt spacer holes as per Dwg D3274

2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube

3-Bond web in place as per Dwg D3274 & QSI 015.

A/RSikaflex-291 M120813

Sikaflex expire date: 12-08-12

Start: 13:45 Time: 12-4-10

Finish: 14:10 Time: 12-4-10 12-04-10

(Adhere for 12 hours)

1 0 CF 12-4-10

W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start *NR1*

QC: Date: SPC (Y/N): Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160

QC5- Inspect part completeness to step on W/O

0.00

160

QC

Memo

0.00

Quality Control

1 0 SE 12/04/11

170

0.00

170

Skid tubes

Skid tubes

Memo

0.00

Skid tubes

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-1T2
OPEN HOLES TO .297" . Deburr

3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8935 FWD
END OF TUBE
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

1 0 SAM 12-04-12

1 0 CF 12-4-12

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1

Cust Item ID:

Required Date: 30/03/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

180

QC5- Inspect part completeness to step on W/O

0.00

3.0"
4.4"

180

QC

Memo

0.00

Quality Control

190

0.00

190

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod
A/RAluminum Rod m120164

3-Grind cross bolt welds flush as per Dwg D3274.

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274 and deburr.

BE12/04/12
78/CC 12-4-17

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W/O:		WORK ORDER CHANGES					
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	QC5- Inspect part completeness to step on W/O	0.00							
200		0.00							
QC	Memo								
Quality Control									
210	QC10- Inspect visual per QSI004- ground welds	0.00							
210		0.00							
QC	Memo								
Quality Control									
220	Pressure Wash per QSI005 4.3	0.00							
220		0.00							
HandFinish	Memo								
Hand Finishing	Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch								

ME 12-4-19

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____
Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Start Date: 21/03/2012 Start Qty: 1.00

1

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Required Date: 30/03/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum	0.00				1X	Ø		MK 12/04/19
230									
Powdercoat									
Powder Coating									
	Memo								
	START TIME: 11:45	0.00							
	OVEN TEMPERATURE: 320°F								
	FINISH TIME: 12:15								
240	QC3- Inspect Part Finish	0.00				1X	Ø		M 12/04/20
240									
QC									
Quality Control	Memo								
250	HandFinishing	0.00				1X	Ø		M 12/04/20
250									
HandFinish									
Hand Finishing									
	Memo								
	1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets.								
	A/RN/ALPS-3 12114596								
	2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a								
	A/RSikaflex-291 12171271								
	Sikaflex expire date: 12/16								

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	QC5- Inspect part completeness to step on W/O	0.00				1	0		BL 12-4-20
260									
QC	Memo	0.00							
Quality Control	✓ Inspect Nut Plate & Inserts								
270		0.00							
270	HAND FINISHING RESOURCE #1								
HandFinish	Memo	0.00							
Hand Finishing	1-Install wearpads & gaskets as per Dwg D3274.								
	2-Install ring as per Dwg D3274								
	A/RSikaflex-291 11/12/12								
	Sikaflex expire date: 13/01								
	3-Inspect for foreign objects as per QSI 024								
	4-Spray inside of tube on both sides of web with LPS-3								
	A/R LPS-3 Batch: 101A								
	5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.								
	A/RSikaflex-291 11/12/12								
	Sikaflex expire date: 13/01								

Dart Aerospace Ltd

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Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
280	QC5- Inspect part completeness to step on W/O	0.00							
280									
QC	Memo	0.00							
Quality Control									
290	Identify as per dwg & Stock Location: _____	0.00							
290									
Packaging	Memo	0.00							
Packaging									
300	QC21- Final Inspection - Work Order Release	0.00							
300									
QC	Memo	0.00							
Quality Control									

8/16/12

AP 8/19/12

12/14/12

MCS 12/04/30

MCS 12/04/30

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Picklist Print

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Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 21/03/2012

Required Date: 30/03/2012

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP Rev:B05.09.23 Revised per D206-642 Rev. JKJ/JLM
 IPP Rev:C 07-02-23 Added SS Wearplates & Gaskets JLM
 IPP Rev:D 07-12-06 replace NAS1515H3L to D3672-1 DD
 IPP Rev:E 08-04-17 as per PAR 08-015 DD verified by:EC
 IPP Rev:F 08-06-02 add comment DD verified by:EC
 IPP Rev:G 08-10-09 revise details DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-1-190		Manufactured	No			110	Each	121.0000	1	1			
D2600-1-190									**				
Extrusion Round 3" 206													

SAD 12-04-02

Location	Loc Qty	Loc Code
HALL	45	
69622	45	
LG	76	
76912	76	

D3285-1		Manufactured	No			110	Each	56.0000	1				
D3285-1									**				
Cap													

BRB-0405

Location	Loc Qty	Loc Code
LG002	56	
52511	9	
52647	47	

D3282-041		Manufactured	No			150	Each	4.0000	1	1			
D3282-041									**				
Float Web (206L/407)													

B 80837

1 CF 12-4-10

Location	Loc Qty	Loc Code
LG	4	
74294	1	
77498	3	

Dart Aerospace Ltd

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D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 21/03/2012

Required Date: 30/03/2012

Start Qty: 1.00

Required Qty: 1.00

D2649

Manufactured

No

190

Each

1,360.000

12

12

D2649

Cross Bolt Spacer

BE 12/04/12
*B 79564 *12*

Location

Loc Qty

Loc Code

LG

903

77574

2

79502

403

79503

399

79565

99

LG001

457

65317

1

68224

2

68507

11

71355

2

72704

2

72841

11

73390

8

73857

21

73858

53

73859

4

73860

4

78020

6

78583

2

79566

330

D3275-1

Manufactured

No

190

Each

226.0000

12

12

D3275-1

Crossbolt Spacer

BE 12/04/12

Location

Loc Qty

Loc Code

LG

103

80184

103

LG002

123

66930

106

74437

17

12

Dart Aerospace Ltd

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Parent Item Name: Replacement Skidtube

Start Date: 21/03/2012

Required Date: 30/03/2012

Start Qty: 1.00

Required Qty: 1.00

CR3212-4-03

Purchased

No

250

Each

1,432.000

2

2

CR3212-4-03

Cherry Rivet

**

yl 12/04/20

Location

Loc Qty

Loc Code

FP002

442

114859

442

ST331

990

110139

2

119017

988

X2

D3415-041

Manufactured

No

250

Each

14.0000

1

1

D3415-041

Nut Plate

**

yl 12/04/20

Location

Loc Qty

Loc Code

ST042

14

67605

14

X1

CCR264SS3-3

Purchased

No

250

Each

575.0000

2

2

CCR264SS3-3

Cherry Rivet

**

yl 12/04/20

Location

Loc Qty

Loc Code

ST331

575

113973

2

117849

109

119017

464

X2

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

March-21-12 3:43:08 PM

Work Order ID: 82004

82004

Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 21/03/2012

Required Date: 30/03/2012

Start Qty: 1.00

Required Qty: 1.00

ALS4-1032-130

Purchased

No

250

Each

4,213.000

78

78

AI S4-1032-130

Insert

**

12/04/20

Location

Loc Qty

Loc Code

ST280

283

119084

116

120671

167

ST281

3930

120807

1930

120837

2000

X78

D3536-15

Manufactured

No

270

Each

20.0000

1

1

D3536-15

Gasket

**

1381343 (v1) 12/04/20

Location

Loc Qty

Loc Code

FP002

20

73318

16

80333

4

D3536-23

Manufactured

No

270

Each

34.0000

1

1

D3536-23

Gasket

**

12/04/20

Location

Loc Qty

Loc Code

FP002

34

74510

8

80334

26

D3536-35

Manufactured

No

270

Each

24.0000

1

1

D3536-35

Gasket

**

12/04/20

Location

Loc Qty

Loc Code

FP002

24

80335

24

Y1

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

March-21-12 3:43:08 PM

Work Order ID: 82004

82004

Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 21/03/2012

Required Date: 30/03/2012

Start Qty: 1.00

Required Qty: 1.00

D3536-39	Manufactured	No	270	Each	12.0000	1	1	
D3536-39						**		<u>MI 12/04/20</u>
Gasket								

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
	FP002	12	
	<u>73317</u>	12	<u>X1</u>
D3535-15	Manufactured	No	270 Each 18.0000 1 1
D3535-15			** <u>MI 12/04/20</u>
Wearshoe			

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
	FP001	18	
	<u>74512</u>	6	<u>X1</u>
	80328	12	
D3535-35	Manufactured	No	270 Each 24.0000 1 1
D3535-35			** <u>1381358 (X1) MI 12/04/20</u>
Wearshoe			

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
	FP001	24	
	67598	1	
	70815	1	
	78873	13	
	79849	1	
	80332	8	

D3535-39	Manufactured	No	270	Each	18.0000	1	1	
D3535-39						**		<u>MI 12/04/20</u>
Wearshoe								

	<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
	FP001	18	
	69759	1	
	73316	5	
	<u>74513</u>	12	<u>X1</u>

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Page 6

March-21-12 3:43:08 PM

Work Order ID: 82004

82004

Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 21/03/2012

Required Date: 30/03/2012

Start Qty: 1.00

Required Qty: 1.00

D3535-23

Manufactured No

270 Each

27.0000

1

1

D3535-23

Wearshoe

**

u 12/04/20

Location

Loc Qty

Loc Code

FP001

27

74508

9

80330

18

D3537-3

Manufactured No

270 Each

6.0000

1

1

D3537-3

Wearpad

**

B378836 (x1) u 12/04/20

Location

Loc Qty

Loc Code

FP002

6

74500

1

76986

5

D3537-1

Manufactured No

270 Each

87.0000

9

9

D3537-1

Wearpad

**

B373716 (x9) u 12/04/20
B383254 (x9)

Location

Loc Qty

Loc Code

FP001

82

79833

28

79835

54

FP002

5

69817

5

AN960C10L

NAS1149C0332

Purchased

No

270

Each

0.0000

80

80

AN960C10I

washer

**

11121255 (x80) u 12/04/20

AN960C416

NAS1149C0463

Purchased

No

270

Each

0.0000

1

1

AN960C416

washer

**

1117735 (x1) u 12/04/20

March-21-12 3:43:08 PM

Shop Packet Print

Page 6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

March-21-12 3:43:08 PM

Page 7

Work Order ID: 82004

82004

Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 21/03/2012

Required Date: 30/03/2012

Start Qty: 1.00

Required Qty: 1.00

D3672-1

Manufactured No

270

Each

1,194.000

2

2

D3672-1

Phenolic Washer

**

u 12/04/20

Location

Loc Qty

Loc Code

FP001

190

66821

190

ST060

1004

72229

4

76277

500

80369

500

x2

AN3C4A

Purchased

No

270

Each

3,047.000

80

80

AN3C4A

BOLT

**

u 12/04/20

Location

Loc Qty

Loc Code

ST350

2997

117688

5

118112

16

119749

10

120187

2000

120423

10

120521

510

120769

355

120799

25

120930

66

ST351

50

121060

50

x80

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

March-21-12 3:43:08 PM

Work Order ID: 82004

82004

Parent Item: D206-642-541

D206-642-541

Parent Item Name: Replacement Skidtube

Start Date: 21/03/2012

Required Date: 30/03/2012

Start Qty: 1.00

Required Qty: 1.00

AN4C5A	Purchased	No	270	Each	256.0000	1	1	
AN4C5A						**		u 11/04/12
BOLT								

Location	Loc Qty	Loc Code
ST355	256	
112243	156	
119017	100	

D2646	Manufactured	No	270	Each	114.0000	1	1	
D2646						**		u 12/04/12
Aft Cap								

Location	Loc Qty	Loc Code
FP002	114	
62678	5	
68280	5	
70945	1	
71070	2	
73294	1	
73825	2	
78018	22	
79500	32	
79562	44	

D3413-1	Manufactured	No	270	Each	72.0000	1	1	
D3413-1						**		u 11/04/12
Ring								

Location	Loc Qty	Loc Code
ST420	17	
70773	1	
79233	16	
ST464	55	
76754	33	
80224	22	

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN CP	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3274	REV. D SHEET 1 OF 4
DATE 06.12.19		TITLE SKIDTUBE ASSEMBLY	SCALE NTS
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

RELEASED
07.02.12
DEO ATTACHED

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

GENERAL NOTES:

- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- DAMAGE TOLERANCE ON FWD BEND:
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- ALL HOLES DRILLED ON CENTERLINES.
- BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
- WELDING TO BE DONE PER DART QSI 004.
- FINISH: - ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1
- POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
- DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO 82004 HUS
12/03/11

ENGINEERING
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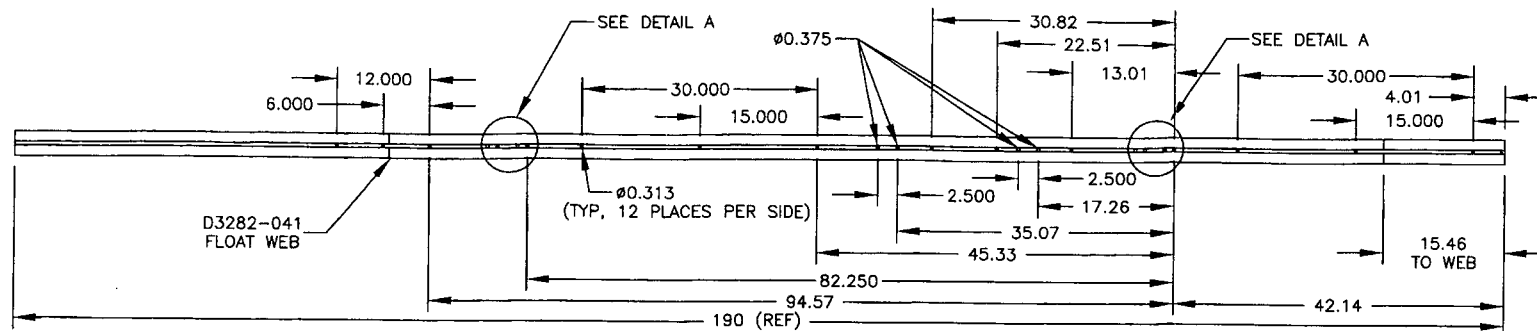
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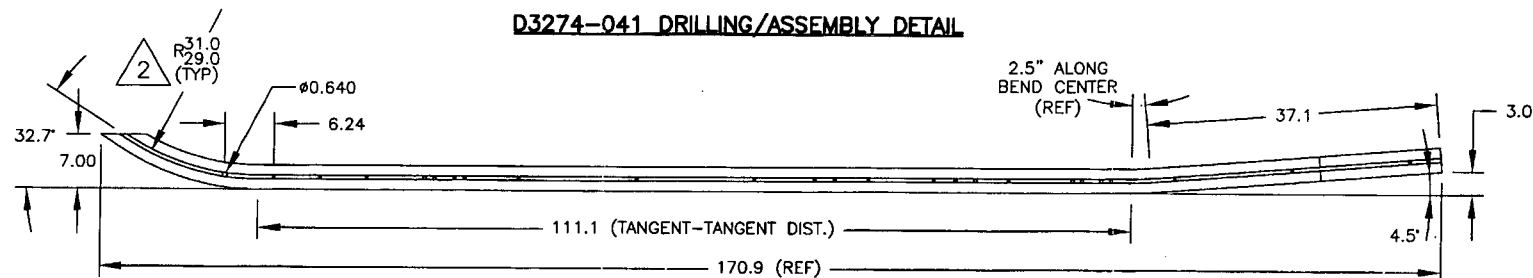
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82004

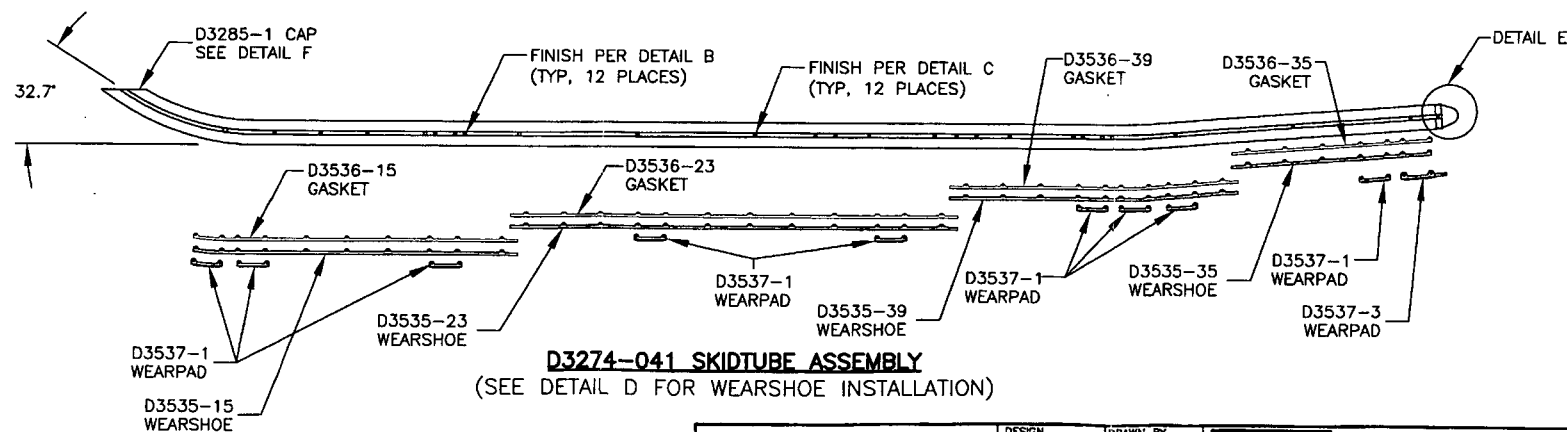
DEO ATTACHED



D3274-041 DRILLING/ASSEMBLY DETAIL



D3274-041 BEND/DRILLING DETAIL

D3274-041 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07.02.12

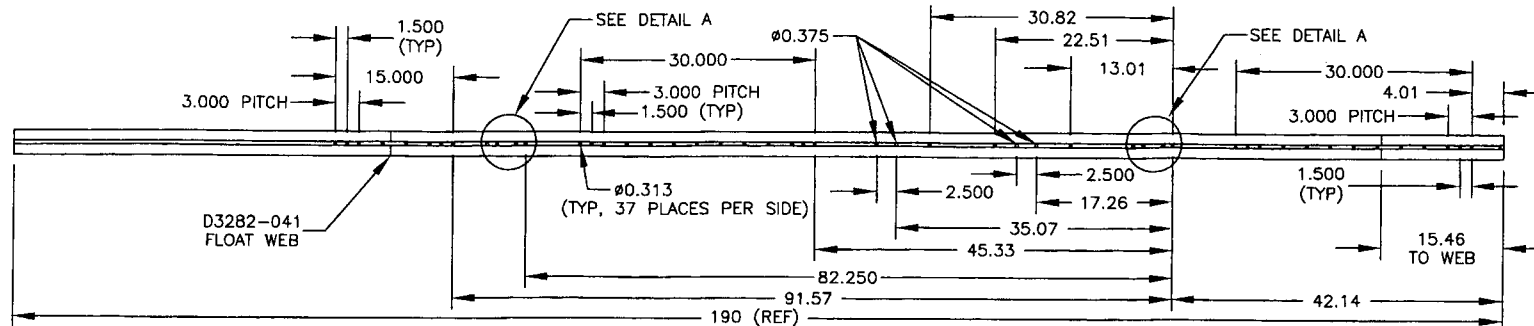
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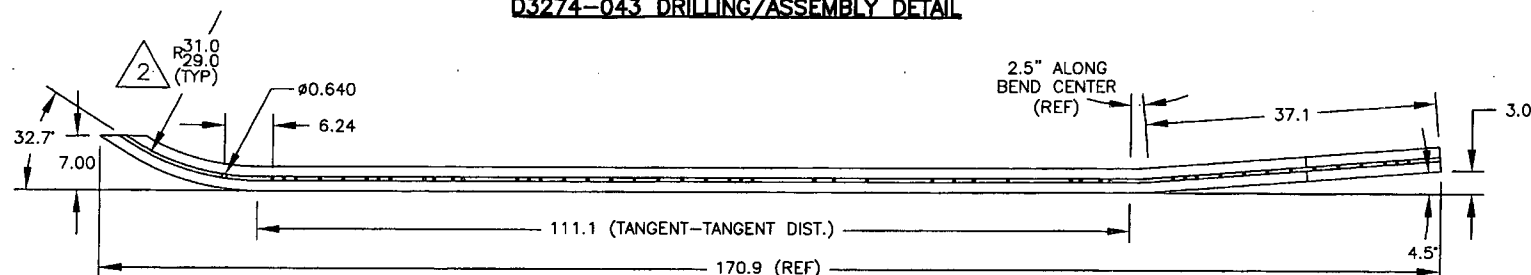
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CHECKED	#	APPROVED	#	DRAWING NO.	D3274
DATE	06.12.19	TITLE	SKIDTUBE ASSEMBLY	REV. 0	SHEET 2 OF 4
				SCALE	1:15

DEO ATTACHED

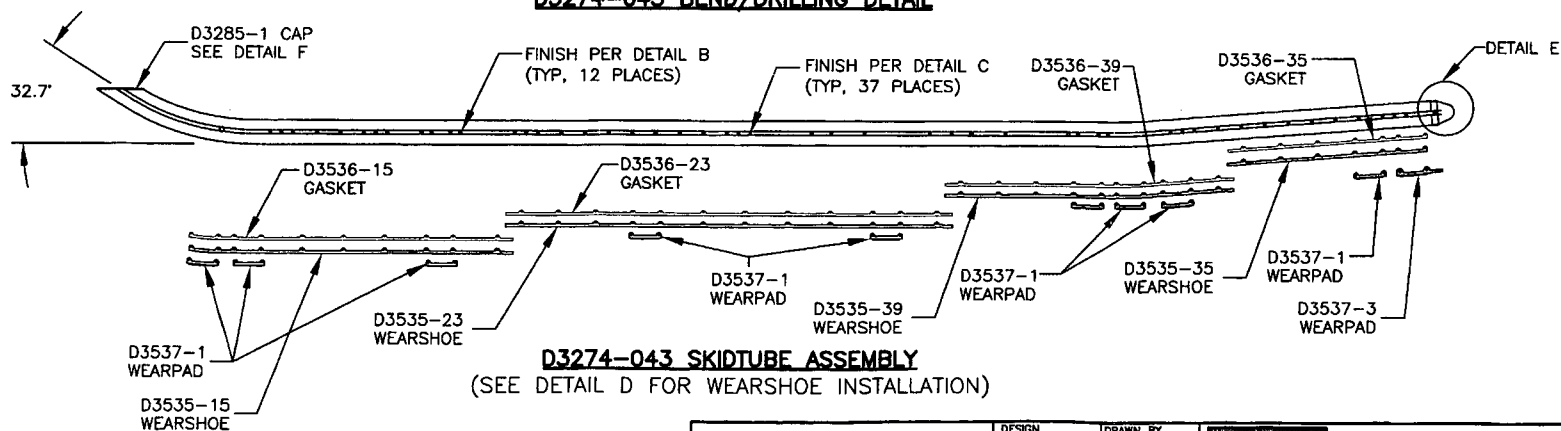
82004



D3274-043 DRILLING/ASSEMBLY DETAIL



D3274-043 BEND/DRILLING DETAIL



D3274-043 SKIDTUBE ASSEMBLY
(SEE DETAIL D FOR WEARSHOE INSTALLATION)

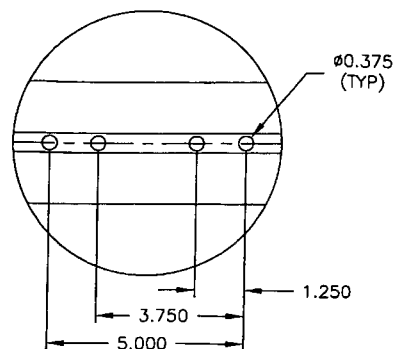
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07.02.12

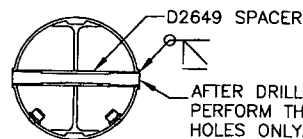
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DATE		06.12.19		DRAWING NO.		D3274
TITLE		SKIDTUBE ASSEMBLY		REV. D		SHEET 3 OF 4
SCALE		1:15				

82004

DETAIL A: DRILL DETAIL

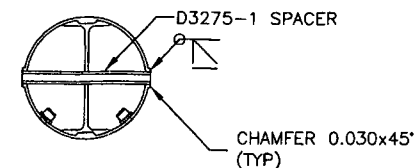


DETAIL B FOR 0.375 HOLES ONLY

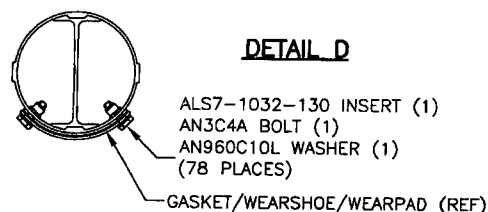


- AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR 0.375
HOLES ONLY:
1. CHAMFER HOLE 0.030x45°
 2. INSERT D2649 SPACER
 3. WELD INTO PLACE AND GRIND FLUSH
 4. C'BORE TO 0.313x0.75 DEEP

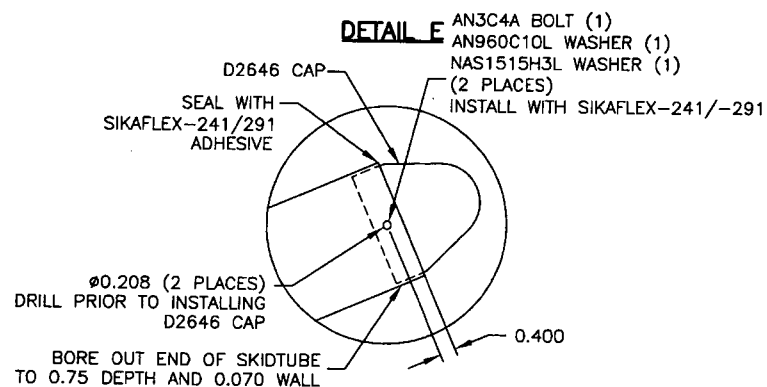
DETAIL C FOR 0.313 HOLES ONLY



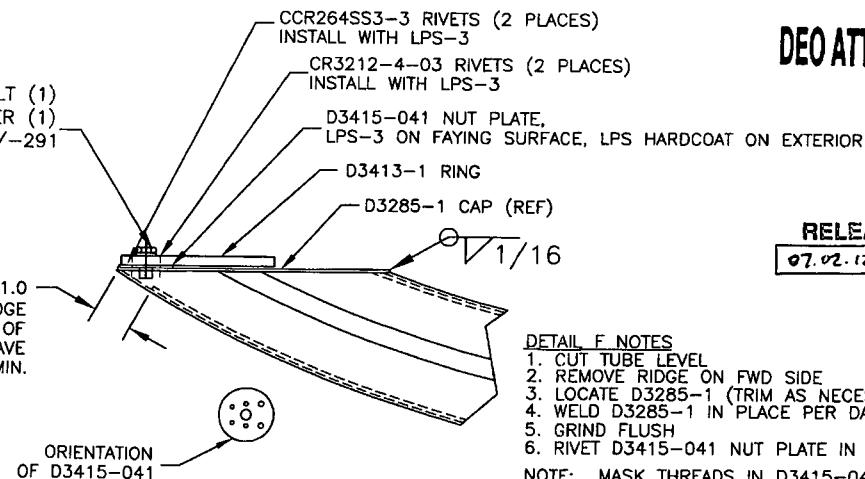
DETAIL D



DETAIL E



DETAIL F: END FINISHING DETAIL



DEO ATTACHED

RELEASED
07.02.12

- DETAIL F NOTES**
1. CUT TUBE LEVEL
 2. REMOVE RIDGE ON FWD SIDE
 3. LOCATE D3285-1 (TRIM AS NECESSARY)
 4. WELD D3285-1 IN PLACE PER DART QSI 004
 5. GRIND FLUSH
 6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041
PRIOR TO FINISH

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		DATE	06.12.19	TITLE	SKIDTUBE ASSEMBLY	SCALE 1:3	

82004

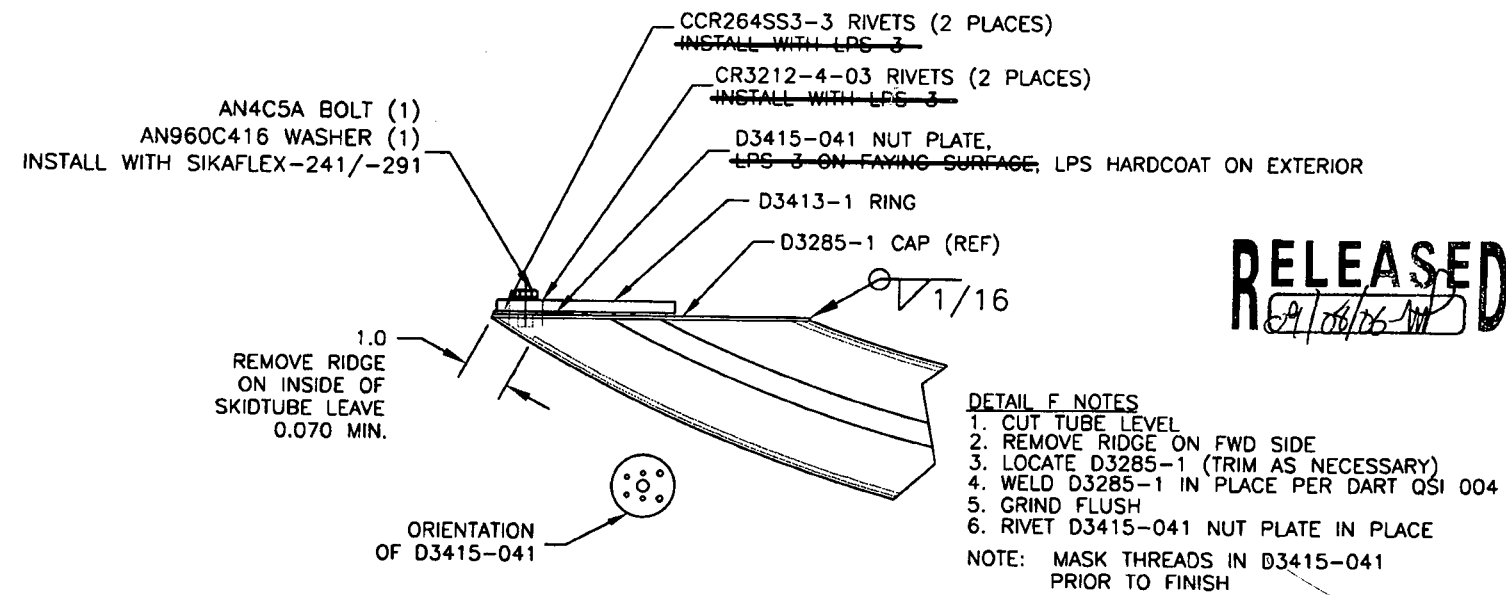
DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER	D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>CP</i>	CHECKED <i>L</i>	MFG. APPR. <i>M</i>	APPROVED <i>MP</i>	DE APPR. <i>#</i>		
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE 09/06/23	DATE 09.06.23		

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: ~~"SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS-3' AFTER FINISH AND INSTALLATION OF INSERTS.~~
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

DETAIL F: END FINISHING DETAIL



NO. 287

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: 796517
Part number: A206-646-341
Description: Skid tube
Welding Process: Tig[☒] Mig[]
Base material: Alum
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier David Hand Date of Test Coupon 12-04-03
Welder Barclay Elliott Date of Test Coupon 12-04-03

The above named individual is qualified in accordance with AWS D17.1.2001 to weld